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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,187	02/25/2004	Atsushi Murakami	249-327	7411

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EXAMINER	
VO, HAI	
ART UNIT	**PAPER NUMBER**
1771	

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/785,187	MURAKAMI ET AL.	
	Examiner	Art Unit	
	Hai Vo	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-19* is/are pending in the application.

4a) Of the above claim(s) *18 and 19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/939,643.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *0225*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Election/Restrictions

1. Applicant's election with traverse of Group, I, claims 11-18 in the reply filed on 11/30/2005 is acknowledged. The traversal is on the ground(s) that the reasons given for restriction appear to be flawed. This is not found persuasive because the article having a joint and a shape memory foam fluid seal (Group I) and the soundproof cover mounted on an automobile engine (Group III) are directed to two different inventions having different modes of operation and different functions (see rejections below).

   The requirement is still deemed proper and is therefore made FINAL.

2. Applicants are reminded of their right to request rejoinder of method claims with the product claims upon indication of the product claims as being allowable. The method claims must be commensurate with the allowed article claims, i.e. have been amended to recite all the features of the allowed article claims. See *In re Ochiai* 37 USPQ2d 1127.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

   > (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 57-126633 in view of Osanai et al (US 6,237,717). JP'633 discloses a dash

insulator comprising a compressed urethane foam impregnated with a viscoelastic substance. The urethane foam is mounted in a joint in a compressed state and is released from its compressed state and is expanded by heating and softening the hardened viscoelastic substance (abstract). The viscoelastic substrate is melted while the urethane foam under a compression state is expanded upon heating. Likewise, the viscoelastic substrate has a melting point lower than that of the urethane foam. JP'633 does not specifically disclose the urethane foam having an open cell structure. Osanai, however, teaches a noise insulating member for the automotive dashboard comprising a urethane foam having an open cell structure as shown in table 1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the urethane foam having an open cell structure motivated by the desire to provide the dash insulator having excellent noise insulating properties.

JP'633 does not specifically disclose the steps of making the shape memory foam. However, it is a product-by-process limitation not as yet shown to produce a patentably distinct article. It is the examiner's position that the article of JP'633 as modified by Osanai is identical to or only slightly different than the claimed article prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity as discussed above. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is

the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. ***In re Thorpe***, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. ***In re Marosi,*** 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with JP'633 as modified by Osanai.

JP'633 does not specifically disclose the base foam being recovered in 70% or more of an uncompressed state thereof by heating or the thickness of the base foam being retained in a half or less of an uncompressed state thereof in a room temperature. However, it appears that JP'633 as modified by Osanai is using urethane foam having an open cell structure with a cell size and density within the claimed ranges to form the base foam as Applicants. Further, both the urethane foam of JP'633 as modified by Osanai and the present invention are found useful as a dash insulator, which serves the same purposes. Therefore, it is not seen that the resulting foam would have performed differently than the base foam of the present invention in terms of volume recovery, thickness retention and water absorption coefficient so as to be sufficient to function as a dash insulator.

5. Claims 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 57-126633 in view of Takahashi et al (US 6,013,362). JP'633 discloses a dash insulator comprising a compressed urethane foam impregnated with a viscoelastic substance. The urethane foam is mounted in a joint in a compressed state and is released from its compressed state and is expanded by heating and softening the hardened viscoelastic substance (abstract). The viscoelastic substrate is melted while the urethane foam under a compression state is expanded upon heating. Likewise, the viscoelastic substrate has a melting point lower than that of the urethane foam. JP'633 does not specifically disclose the urethane foam having an open cell structure. Takahashi, however, teaches soundproof material that can be easily mounted in a narrow space comprising a urethane foam having an open cell ratio of at least 30% for the soundproof effect (column 2, lines 34-36). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the urethane foam having an open cell structure to provide the dash insulator having excellent noise insulating properties.

JP'633 does not specifically disclose the steps of making the shape memory foam. However, it is a product-by-process limitation not as yet shown to produce a patentably distinct article. It is the examiner's position that the article of JP'633 as modified by Takahishi is identical to or only slightly different than the claimed article prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity as discussed above. Even though product-by-process claims are limited by and defined by the process, determination

of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. ***In re Thorpe***, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. ***In re Marosi,*** 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with JP'633 as modified by Takahishi.

JP'633 does not specifically disclose the base foam being recovered in 70% or more of an uncompressed state thereof by heating or the thickness of the base foam being retained in a half or less of an uncompressed state thereof in a room temperature. However, it appears that JP'633 as modified by Takahishi is using urethane foam having an open cell structure with the density within the claimed range to form the base foam as Applicants. Therefore, it is not seen that the resulting foam would have performed differently than the base foam of the present invention in terms of volume recovery, thickness retention and water absorption coefficient so as to be sufficient to function as a dash insulator.

JP'633 does not specifically disclose the viscoelastic substance made from acrylic resin. Takahashi, however, discloses a soundproof material comprising an open cell urethane foam impregnated with an acrylic resin to provide the material having a desired air permeability and a satisfactory soundproof property. The acrylic resin would inherently have the melting point less than 120°C because like material has like property. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use an acrylic resin as an impregnating material motivated by the desire to provide the dash insulator having excellent noise insulating properties.

6. Claims 11-15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bogdany (US 5,114,773) in view of GB 1 423 219. Bogdany teaches a carpet underlay cushion structure comprising a polyurethane foam impregnated with a fluid composition that includes acrylic polymer or styrene copolymer (column 5, lines 60-68). Bogdany teaches the foam carrier/thermoplastic substance heated and compressed at the temperature higher than the softening temperature of the thermoplastic substance (column 10, lines 58 et seq.). Bogdany teaches the foam carrier/thermoplastic substance cured and compressed at the temperature in the range from 120°F to 550°F (49°C to 288°C) (column 8, line 8) overlapping with the claimed range. The impregnated foam material is cooled while retaining it in the compressed state (column 11, lines 5-8). Bogdany teaches after cooling, the thermoplastic substance no longer in a softened state and the cured thermoplastic substance serves to freeze the finish product at substantially the thickness to which

the foam carrier/thermoplastic substance was reduced in the compressed state (column 11, lines 8-17). Bogdany discloses the thermoplastic substance having a thickness in the range of 80 to 650 mils (column 8, line 23). Likewise, it is apparent that a compressed state of the foam carrier/thermoplastic substance is retained in a room temperature by a hardened layer of the thermoplastic substance existing in the cell surface layer of the foam carrier. Bogdany does not specifically disclose the compressed state being released by softening the hardened product of the thermoplastic substance by heating. However, Bogdany's composite foam structure meets all the structural and chemistry limitations in the claims. It appears that Bogdany and Applicants are using the same materials to form a base foam and a thermoplastic substance and the same process (impregnating, heating, compressing, cooling and releasing the pressure after cooling) to produce a shape memory foam material, it is not seen that the composite foam structure of Bogdany would have performed differently from Applicants' shape memory foam material upon softening the hardened product of the thermoplastic substance by heating. It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete. Bogdany discloses the two pieces of carpet tiles are joined next to one another to form a floor covering (column 13, lines 1-3). Bogdany does not teach the carpet tiles mounted in the joint. GB'219, however, discloses how two pieces of carpet underlay joined next to one another by an adhesive strip of joining material which is laid on the underside of the carpet tiles (page 1, lines 85-90 to page 2, lines 1-5). Therefore, it would have been obvious to

one having ordinary skill in the art at the time the invention was made to join the carpet tiles one to another by an adhesive strip motivated by the desire to improve the adhesion between the carpet tiles.

With regard to claims 12 and 13, Bogdany does not specifically disclose a volume of the foam material being recovered in 70% or more of an uncompressed state thereof by heating. However, Bogdany's composite foam structure meets all the structural and chemistry limitations in the claims. It appears that Bogdany and Applicants are using the same materials to form a base foam and a thermoplastic substance and the same process (impregnating, heating, compressing, cooling and releasing the pressure after cooling) to produce a shape memory foam material, it is the examiner's position that the volume of the foam material in Bogdany would have inherently recovered within the claimed range of an uncompressed state thereof by heating. It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete (Note discussion found in Ex parte Slob, 157 USPQ 172). The same token is applied to the retaining thickness of the foam material in an uncompressed state at the room temperature.

With regard to claims 14 and 15, Bogdany discloses the composite foam structure comprising the base foam material of polyurethane having a density less than 1.5 lb/ft3 (24 kg/cm3) (column 5, line 49). Likewise, it is apparent that the foam has a density less than 100 kg/m3. Since Bogdany is using the same polyurethane foam with a density within the claimed range to form a shape memory foam material as Applicants, it is the examiner's position that the water absorption coefficient of the

foam would be inherently present. Products of identical chemical composition can not have mutually exclusive properties. ***In re Spada***, 15 USPQ 2d 1655 (1990).

With regard to claims 17 and 18, it appears that Bogdany and Applicants are using the same materials to form a thermoplastic substance of a shape memory foam material such as vinyl acetate, polystyrene (column 5, lines 65-67), it is not seen that the softening temperature of the thermoplastic substance would be present outside the range claimed by the present invention. This is also in line with ***In re Spada***, 15 USPQ 2d 1655 (1990).

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 11-18 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 6,817,441 in view of Takahashi et al (US 6,013,362). The claims of U.S. Patent No. 6,817,441 discloses each and every limitation of the presently claimed subject matter except the foam member having an open cell structure and a thermoplastic substance impregnated into the cells of the foam member and a joint where the foam member is mounted in. Takahashi, however, discloses a soundproof material comprising an open cell urethane foam impregnated with an acrylic resin to provide the material having a desired air permeability and a satisfactory soundproof property. The acrylic resin would inherently have the melting point less than 120°C because like material has like property. Takahashi discloses the soundproof material can be easily mounted in a narrow space which reads on Applicants' joint. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to impregnate the shape memory foam member with an acrylic resin motivated by the desire to provide the foam with excellent sound insulating property.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the foam member in the joint because such is an intended use of the material and Takahishi provides necessary details to practice the invention of the US Patent 6,817,441.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485.

The examiner can normally be reached on Monday through Friday, from 6:00 to 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV

Hai Vo

HAI VO
PRIMARY EXAMINER